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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,900	11/25/2003	Charles L. Tazzia	IN-5653	1184

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BASF CORPORATION
1609 BIDDLE AVENUE
WYANDOTTE, MI 48192

EXAMINER

SERGEANT, RABON A

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 11/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/723,900	Applicant(s) TAZZIA, CHARLES L.	
	Examiner Rabon Sergeant	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7-9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to: See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 4, 7-9, and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartung et al. (US 2003/0150730) in view of O'Connor et al. ('684) or Gras et al. ('613).

Hartung et al. disclose aqueous electrodepositable coating compositions, wherein an externally crosslinking binder, such as a cationic group containing active hydrogen functional epoxy resin, and crosslinking agent are homogeneously mixed as melts and subsequently emulsified into an aqueous medium to yield the coating composition. The reference discloses that the crosslinking agent may be selected from uretdione containing polyisocyanates, wherein dimerized isophorone diisocyanate is disclosed as being one of the preferred crosslinking agents. See paragraphs [0007]-[0017], [0026], [0034], and [0044]. Hartung et al. disclose within paragraphs [0020]-[0026] that the cathodically depositable electrodeposition coatings employ quaternary ammonium, sulfonium, and quaternary phosphonium groups.

3. Though the primary reference discloses that a preferred crosslinking agent for the coatings is a dimerized or uretdione containing isocyanate, the reference fails to disclose an uretdione crosslinking agent that corresponds to applicant's claimed uretdione compound. However, uretdione containing crosslinking agents having applicant's claimed structure, wherein the uretdione diisocyanate is modified with a polyol compound to introduce urethane groups into the uretdione structure, were known at the time of invention. This position is supported by the teachings of O'Connor et al. and Gras et al. O'Connor et al. disclose that uretdione containing

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polyurethane oligomers are useful for the production of aqueous polyurethane dispersion coatings. See abstract and columns 2 and 4 within O'Connor et al. Gras et al. disclose polyaddition products containing uretdione groups which are useful for the production of powder coating and stoving enamels. See abstract. Gras et al. further disclose that the uretdione polyaddition products may be reacted with active hydrogen functional epoxy resins. See column 4, lines 26 and 27. Therefore, given the teachings concerning the use of uretdione containing crosslinking agents within Hartung et al. and the disclosed utilities for the polyaddition compounds within the secondary references, the position is taken that one of ordinary skill in the art would have been motivated to employ the uretdione containing polyaddition compounds of the secondary references as the crosslinking agent of Hartung et al.

4. Applicant has argued that the instant claims are distinguished from O'Connor, because the uretdione of O'Connor possesses carboxylic groups, whereas the uretdione of applicants does not possess such groups. In response, contrary to applicant's argument, the instant claims do not exclude the argued groups. The instant claims merely require that the uretdione comprises the claimed structure, and the position is taken that the argued reference discloses a uretdione containing such a structure. Applicant has further argued that Gras et al. does not describe uretdione products for use in aqueous, electrodepositable coatings and that there is no suggestion in the Gras et al. reference for one of ordinary skill to combine the polyurethane powder coatings of Gras et al. with the aqueous coating system of Hartung et al. In response, both Gras et al. and Hartung et al. disclose coating compositions derived from uretdione or dimerized isocyanates, and the position is taken that these teachings coupled with the teachings to produce aqueous coatings within Hartung et al. provide the necessary nexus to combine the teachings of the

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references. In both references, the uretdione or dimerized isocyanates function as crosslinking agents for active hydrogen compounds, and the position is taken given the similarities of function and structure of the respective crosslinking agents that one of ordinary skill would have expected them to act as equivalents within Hartung et al. Furthermore, it is noted that applicant's goal was to use a solid crosslinking agent; therefore, it cannot be argued that the reference, drawn to powder coatings, wherein the components are solid, is from non-analogous art, since the reference is reasonably pertinent to the particular problem with which the inventor was involved, namely to utilize a solid crosslinking agent in a coating composition. Applicant has further argued that the primary reference fails to disclose an epoxy resin having a quaternary phosphonium group. In response, as aforementioned within paragraph 2, the reference clearly sets forth quaternary phosphonium groups as one of the cationic groups to be used within the binder component; therefore, the position is taken that the reference adequately discloses binder components, including epoxy resins, containing quaternary phosphonium groups.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent
November 1, 2006


RABON SERGENT
PRIMARY EXAMINER